Torch-X™ Dismounted-Joint Fires

Integrated Digital Solution for Fire Support Teams and Joint Terminal Attack Controller

Elbit Systems™
C4I and Cyber

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The terminal control of sophisticated joint fires munitions on the modern battlefield requires accuracy, agility and a faster tempo. Multi-domain tactical targeting demands the timely and safe coordination of networked effectors and sensors to deliver the required target effect. Coordinated joint fires integrated with dynamic and high tempo maneuver plans require effective planning and decisive execution. Digital connectivity at all levels of command and between combat troops and fire integrators enhances situational awareness, combat safety and survivability, together with the flexibility to rapidly adapt to evolving tactics, techniques and procedures.

Product Overview

Torch-X Dismounted-Joint Fires is a multi-domain joint fires solution, designed for Fire Support Teams (FST), Joint Terminal Attack Controllers (JTAC) and Tactical Air Control Parties (TACP), for multi-domain non-kinetics and kinetics indirect fire and Close Air Support (CAS). The comprehensive suite for dismounted soldiers is controlled, managed, and operated by Elbit Systems' Torch-X Fires to enable rapid ISTAR-to-effector cycles.

A battle management system with a single interface for all applications and users, Torch-X Dismounted-Joint Fires integrates a wide range of advanced technology components to support mission planning and execution of digital fires in the dynamic and complex modern battlespace. The system is fully operational, battle-proven and NATO interoperable across the battlefield. Native interaction with Torch-X HQ is in development by the UK MOD for all HQs from Section to Corps.

Battle management hub: Simple and intuitive single interface enables improved operational tempo, increased operational effectiveness, reduced cognitive burden and lower skill fade.

Advanced technology and open architecture: The flexible solution interfaces with multiple devices and systems and easily integrates with legacy equipment.

Optimal dismounted configuration: Low SWaP, lightweight and body-wearable with total carried weight of less than 20kg, suitable for prolonged operations.

Enhanced survivability: Passive targeting and remote operating capabilities.

- **Simple and intuitive single Interface**
- **Rapid and enhanced CAT-1 target acquisition capabilities**
- **Remote operation of up to 90 meters**
- **Automatic Target Recognition (ATR)**
- **Video Motion Detection (VMD)**
- **Day/night designation and marking**

System Components

Torch-X Fires

Torch-X Fires is a joint multi-domain fires application that supports both indirect fire and CAS missions, from planning to execution. The application supports both non-kinetic and kinetic effectors. The application creates secure digital connectivity between all joint fires integrators at all levels of command and shares situational awareness to create a common operational picture. The flexible system features an open architecture and easily interfaces with multiple military IoT devices, including tactical radios, laser range finders, E/O devices, laser target designators and more. Torch-X Fires increases safety while reducing cognitive burden with a single interface for all applications and users (FST, JTAC, and HQ TACP) and can interface with the Torch-X HQ Battle Management Application.

HattoriX

A lightweight, accurate remote-controlled and independent target acquisition platform for short to medium range dismounted ISTAR missions. Hattorix delivers rapid and enhanced CAT-1 target acquisition capabilities with accurate, stable azimuth and elevation readings. Featuring automated capability allowing remote operation of up to 90 meters and passive targeting with high accuracy, the solution enables covert activity and target acquisition in stealth mode for enhanced survivability. The platform is ideal for target integrators and human ISR capabilities.

AION-C

An advanced, handheld lightweight day and night thermal imager with integrated laser tracking capability, AION-C is a powerful observation system with an extremely accurate Laser Rangefinder, internal GPS system, IR Pointer, Digital Magnetic Compass and IMU providing mobile target acquisition capabilities. AION-C integrates advanced AI capabilities for Automatic Target Recognition (ATR) and Video Motion Detection (VMD).

Rattler-XR

Light weight, interoperable, simple and easy to use 70mJ coded LTD fully comply with NATO STANAG 3733. Designed for the current and future combat challenges based on a built in Laser See-spot capability, smart Spillover Alert and option for remote operation. Rattler-XR Interoperability enables warfighters to bring effective fire on hostile targets faster than ever and with lower workload.

Rattler-H

A hand-held, coded target designator/marker per NATO STANAG 3733, equipped with LRF and Digital Compass which enables warfighters to rapidly bring effective fire to bear on hostile targets. Its miniature Size, Weight and Power (SWaP) make it body wearable and accessible for immediate use during TIC situations and CAS missions.

SMART-Hub

A power and data distribution hub and tactical router for C⁴I dismounted system components. The system controls energy source switching, energy distribution to all components, battery charge control and serves as an interface for external power sources.

E-LynX™

A battle-proven tactical communication solution, the E-LynX soldier combat network is a powerful multi-band, multi-waveform and multi-role SDR platform. The solution supports G2A communication as well as multiple voice groups with a single radio and antenna. Available in handheld and manpack configurations, E-LynX™ meets a wide range of operational needs.

Load Carriage Protection

Torch-X Dismounted-Joint Fires solution can be integrated with a 40/45 liter standard daysack (with additional bespoke side pouches) or can be provided with a bespoke rucksack to allow for quick time in and out of action.

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Key Features

- Bespoke dismounted configuration
- Active and passive targeting solution
- Battle management single user-interface
- User-friendly and intuitive

Key Benefits

- Complete digital fires solution
- NATO interoperable
- Enhanced survivability
- Improves operational tempo
- Reduced cognitive burden
- Integrated with legacy equipment

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